

# *[Light-Weight Code-Zero Headsail System]*

## Abstract

20A headsail for a sailing boat includes a luff rope having a core of parallel filaments of high-tenacity polyester and a tightly braided polyester cover, affixed in proximity to the headsail's luff. An upper marine eye is affixed to an upper end of the luff rope, while a lower marine eye affixed to a lower end of the luff rope. A length of shrink-wrap tubing is disposed about a shank of each marine eye, and is firmly shrunk about both the shank of the corresponding marine eye, and about the luff rope in proximity to the shank. A drum affixed to the lower marine eye includes a bearing assembly having an upper race, and is disposed within the drum body which contains a lower race, the bearing assembly suspended between a plurality of lower balls disposed between the upper race and the lower race, and a single upper ball. Means for restricting an excursion of the upper race relative to the lower race prevents the lower balls from distortion beyond their breaking point.